

PROCEEDINGS
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BIOLOGICAL SOCIETY OF WASHINGTON

DESCRIPTION OF A NEW MUSK RAT FROM CODROY,
NEWFOUNDLAND.

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A fine series of musk rats lately received from Codroy, Newfoundland, shows such differences from *Fiber zibethicus* (Linn.) of Eastern North America that I think it must be regarded as representing a distinct species.

This *Fiber* may be defined as follows:

Fiber obscurus sp. nov.

Diagnosis.

Smaller than *F. zibethicus* (Linn.), with the under parts and sides less ferruginous and the upper parts much darker. The lips and the hairs about the under side of the nose are much lighter (pure white). The fringe of long hair around the toes of the hind feet is decidedly lighter than the feet, while in *F. zibethicus* this fringe is generally of about the same shade as the feet. The under fur is darker than in *zibethicus*. Skull smaller and smoother, not rising into such pronounced bone ridges with age, with the rostrum relatively larger and the auditory bullæ relatively smaller, while the interorbital constriction is actually broader.

Description.

Type.—No. 1155 Collection of E. A. and O. Bangs, Boston, Mass. From Codroy, Newfoundland, May 14, 1894, Ernest Doane, collector. Total length, 476 mm.; tail, 200 mm., hind foot, 70 mm.; ear from notch, 22 mm. (Measurements taken in flesh by the collector).

Upper parts: General color Prout's brown,* shaded a little with Vandyke brown,* darkening on the top of the head to almost black. The long shining hairs are black all over the back, but on the sides they shade off a little to a very dark reddish brown.

Under parts and sides of the head of a shade between Prout's brown,* and broccoli brown,* paling off on the under side of the neck and legs to almost fawn color.* Lips and hair under the nose white. Under fur slate grey everywhere. Feet blackish slate,* with the fringe of long hair around the toes of the hind feet Isabella color.*

Cranial characters: Skull small and smooth, and broad between the orbits, with large rostrum and small audital bullæ.

Specimens taken later in the season than the type are rather more reddish (ferruginous) in general color, but compared with specimens of *F. zibethicus* of corresponding dates from Massachusetts, Nova Scotia, etc., the difference is quite as great as between the type and examples of *F. zibethicus* of the same date as the type from those localities.

I have carefully compared musk rats from our Eastern Coast from Connecticut to Cape Breton and can find no difference in specimens of the same age and season and no tendency towards a small dark northern race,† and therefore incline to the belief that *F. obscurus* is an insular form peculiar to Newfoundland. I have however never seen any musk rats from Labrador, and it is possible that there the animal may be more like the one found in Newfoundland.

*Ridgway's Nomenclature of colors.

†The largest musk rat I have examined is from Shenacadie (Cape Breton) Nova Scotia. It is a very old adult male. No. 2007, Collection of E. A. and O. Bangs, and measures, total length, 632 mm.; tail, 291 mm.; hind foot, 87 mm.; ear from notch, 26.5 mm.

Cranial measurements of ten adult specimens of *Fiber zibethicus* (Linn.).

Locality	Mass., Wareham.	924	Mass., Wareham.	923	Mass., Wareham.	925	Nova Scotia, Shenacadie.	Nova Scotia, Halifax.	Nova Scotia, Shenacadie.	2008	Nova Scotia, Shenacadie.	2010	Nova Scotia, Shenacadie.	2011	Average measurements of the ten specimens.
No.	922	♀	924	♀	Mass., Wareham.	923	♂	Mass., Wareham.	925	♂	Nova Scotia, Shenacadie.	2009	♂	Nova Scotia, Shenacadie.	62.7
Sex	*	♀	♀	♂	♂	♂	♂	♂	♂	♂	♀	♀	♀	♀	59.7
Basilar length	62.4	62.4	59.4	58.6	61.2	61.2	61.2	59.8	63.4	67.	65.8	65.8	61.8	61.8	62.7
Basilar length of Hensel	58.8	59.4	42.2	40.	58.	58.	58.2	57.4	60.6	64.4	62.6	62.6	59.	59.	59.7
Zygomatic breadth	41.2	42.2	6.	6.	39.8	39.8	39.8	38.4	39.8	44.2	42.2	42.2	39.6	39.6	40.72
Interorbital constriction	5.4	6.	22.6	23.4	5.6	5.6	6.2	6.	6.6	5.	6.6	6.6	6.2	6.2	5.96
Greatest length of nasals	22.6	22.6	9.2	9.2	22.4	22.4	22.6	21.2	23.6	25.4	24.8	24.8	22.6	22.6	23.12
Greatest breadth of nasals	9.4	9.2	23.6	22.6	8.8	8.8	9.6	8.6	9.4	9.8	10.2	10.2	9.	9.	9.32
Incisor to molar	23.2	23.6	37.6	36.6	22.4	22.4	23.	22.2	23.6	26.6	25.4	25.4	22.8	22.8	23.54
Incisor to post-palatal notch	36.6	37.6	21.4	21.6	36.4	36.4	35.8	36.4	36.6	40.	40.6	40.6	37.	37.	37.36
Foramen magnum to post-palatal notch	21.8	21.4	15.2	15.2	21.2	21.2	22.	20.6	23.6	24.	21.6	21.6	21.6	21.6	21.94
Upper molar series along crowns	14.6	15.2	18.4	18.4	14.6	14.6	14.8	14.4	15.	14.8	14.8	14.8	15.	15.	14.84
Basioccipital to middle of parietal	19.	18.8	20.6	20.6	18.4	18.4	17.4	17.4	17.4	19.	19.	19.	17.8	17.8	18.26
Fronto-parietal depth at middle of molar series	21.2	20.4	44.4	43.2	20.	20.	19.8	19.8	20.	22.6	21.6	21.6	20.2	20.2	20.62
Greatest length of mandible	44.6	44.4	16.	16.	43.	43.	43.2	42.2	42.4	47.	46.	46.	43.4	43.4	43.94
Length of lower molar series along crowns	15.6	16.4	16.	16.	15.4	15.4	16.	15.4	15.2	16.4	15.4	15.4	16.	16.	15.78

*Collection of E. A. and O. Bangs, Boston, Mass.

Cranial measurements of ten adult specimens of *Fiber obscurus* Bangs.

No.	Type	1155	1101	1156	1158.	1162	1161	1151	1152	1153	1157	Average measurements of the series to specimens.
Sex	♀	♀	♀	♀	♀	♀	♀	♂	♂	♂	♂	
Basilar length	54.6	56.8	51.4	54.8	57.2	52.4		58.	54.4	53.4	54.2	54.72
Basilar length of Hensel	52.	54.	48.8	52.	54.8	50.		55.4	52.4	50.4	51.2	52.10
Zygomatic breadth	36.6	38	34.	35.2	38.2	35.8		39.	36.2	36.	35.4	36.44
Interorbital constriction	6.6	7.2	6.4	6.8	7.	7.		7.	6.4	6.4	6.4	6.72
Greatest length of nasals	22.2	22.	19.4	20.8	20.8	20.2		22.4	20.	19.6	20.	20.74
Greatest breadth of nasals	8.	8.	7.6	7.6	8.8	8.		8.8	7.4	8.	8.	8.02
Incisor to molar	21.	21.8	19.4	20.6	22.	21.		22.	20.6	20.2	20.2	20.88
Incisor to post-palatal notch	33.2	34.	30.4	32.8	34.4	31.		34.4	32.8	31.6	32.6	32.72
Foramen magnum to post-palatal notch	18.4	19.6	18.	18.4	20.	18.8		20.6	19.	19.	18.	18.98
Upper molar series along crowns	13.	13.2	12.6	13.	13.2	12.		13.8	12.4	13.	13.	12.92
Basioccipital to middle of parietal	17.	17.4	16.6	16.8	17.4	16.4		18.	17.	17.	17.	17.06
Fronto-parietal depth at middle of molar series	18.	18.8	16.4	17.4	18.8	17.		19.2	18.	17.2	17.4	17.82
Greatest length of mandible	38.4	40.2	36.	38.	40.	37.		40.4	37.8	37.6	37.4	38.28
Length of lower molar series along crowns	13.4	14.	13.4	13.4	13.4	12.		14.2	13.	13.4	13.	13.32

*Collection of E. A. and O. Bangs, Boston, Mass.

Measurements of ten adult specimens of *Fiber zibethicus* (Linn.)

No.	Sex.	Locality.	Date.	Total length.	Tail vertebrae.	Hind foot.	Height of ear from notch.
*922	♀	Massachusetts, Wareham	July 26, 1893	622	259	84	23.5
924	♀	"	Aug. 4, 1893	619	284	84.5	28
923	♂	"	Aug. 7, 1893	622	281	80	26
925	♂	"	May 6, 1893	582	257	84	23
927	♂	Massachusetts, West Tisbury	June 28, 1893	620	267	79	20.5
2004	♀	Nova Scotia, Halifax	July 17, 1894	540	225	77	25
2007	♂	Nova Scotia, (Cape Breton) Shenacadie	July 26, 1894	632	291	87	26.5
2008	♂	" " "	July 30, 1894	598.5	278	81	23.5
2010	♀	" " "	July 29, 1894	622	287	85	25
2011	♀	" " "	July 25, 1894	558.5	247	80	23
Average measurements of the ten specimens,				601.6	267.6	82.15	24.40

*Collection of E. A. and O. Bangs, Boston, Mass.

Measurements of ten adult specimens of *Fiber obscurus* Bangs.

No.	Sex.	Locality.	Date.	Total length.	Tail vertebrae	Hind foot.	Height of ear from notch.
Type *1155	♀	Codroy, Newfoundland	May 14, 1894	476	200	70	22
" 1101	♀	"	Dec. 6, 1893	517	228	74	18
" 1156	♀	"	May 20, 1894	440	173	70	19
" 1158	♀	"	May 8, 1894	474	220	71	19
" 1160	♀	"	May 7, 1894	517	220	70	20
" 1162	♀	"	July 9, 1894	504	217	72	21
" 1151	♂	"	May 15, 1894	520	223	69	20
" 1152	♂	"	May 14, 1894	480	217	69	20
" 1153	♂	"	May 7, 1894	447	190	70	19
" 1154	♂	"	May 15, 1894	495	220	74	22
Average measurements of the ten specimens,				487	210.8	70.9	20.

*Collection of E. A. and O. Bangs, Boston, Mass.